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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
VON BUHR, MARIA N	

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/838,178	LOF ET AL.	
	Examiner	Art Unit	
	Maria N. Von Buhr	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 8/3/01,9/18/01,11/16/01,8/30/02&5/5/03.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 68-101 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 68-101 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 20 April 2001 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date (2x)2001,2002&2003.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This application is a continuation of U.S. Application Serial No. 09/749,999 and is, therefore, accorded the benefit of the earlier filing date of 29 December 2000. Any previously presented rejections or objections which are not expressly repeated in this Office action are hereby withdrawn.

2. Examiner acknowledges receipt of Applicant's preliminary amendment, received 20 April 2001; which cancels claims 1-67 and 102-184, and amends claims 68. Claims 68-101 are now pending in this application.

3. Examiner acknowledges receipt of Applicant's information disclosure statements, received 03 August 2001, 18 September 2001, 16 November 2001, 30 August 2002 and 05 May 2003, with accompanying reference copies, which have been taken into consideration for this Office action.

4. Figures 2-3 are objected to, because they should be designated by a legend such as -- Prior Art --, since only that which is old is illustrated, as evidenced by their description within the Background of the Invention section of the instant specification. See MPEP §608.02(g).

5. Corrected drawings in compliance with 37 CFR §1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR §1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The specification is objected to, because page 32 includes an incomplete reference to a co-pending application. Correction, including an updated status of this application, is required in response to this Office action.

7. Applicant has incorporated by reference a co-pending application, at page 32 of the specification. Examiner notes that incorporation by reference of an application in a printed United States patent constitutes a special circumstance under 35 U.S.C. §122 warranting that access of the original disclosure of the application be granted. The incorporation by reference will be interpreted as a waiver of confidentiality of only the original disclosure as filed, and not the entire application file, In re Gallo, 231 USPQ 496 (Comm'r Pat. 1986). If Applicant objects to access to the entire application file, two copies of

the information incorporated by reference must be submitted along with the objection. Failure to provide the material within the period provided will result in the entire application (including prosecution) being made available to petitioner. The Office will not attempt to separate the noted materials from the remainder of the application. Compare In re Marsh Engineering Co., 1913 C.D. 183 (Comm'r Pat. 1913).

8. The incorporation of essential material by reference to a foreign application and/or patent or to a publication inserted in the specification is improper. Applicant has incorporated numerous articles by reference, at pages 2, 6, 8, 9 and 55 of the instant specification. Applicant has also incorporated numerous foreign applications and/or patents by reference, at pages 25 and 30-32 of the instant specification. If, during the prosecution of this application, such material becomes essential to the claims, Applicant will be required to amend the disclosure to include the material incorporated by reference. The amendment would have to be accompanied by an affidavit or declaration executed by Applicant, or a practitioner representing Applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

9. Applicant and the assignee of this application are required under 37 CFR §1.105 to provide the following information that Examiner has determined is reasonably necessary to the examination of this application.

a. In response to this requirement, please provide a copy of each of the items of art (i.e.; foreign applications, foreign patents and numerous publications), referred to in the instant specification, at pages 2, 6, 8, 9, 25, 30-32 and 55, as referred to above in paragraph 12.

b. In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in Applicant's disclosure.

c. The fee and certification requirements of 37 CFR §1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR §1.105 that are included in Applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first

communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR §1.105 are subject to the fee and certification requirements of 37 CFR §1.97.

d. Applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR §1.56. Where Applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained may be accepted as a complete reply to the requirement for that item.

e. This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

10. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. §101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. §101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer co-extensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. §101.

11. Claims 68-101 are provisionally rejected under 35 U.S.C. §101 as claiming the same invention as that of claims 68-101 of co-pending U.S. Application Serial No. 09/749,999. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

12. Claims 68-101 are objected to, because "being" (specifically, each occurrence, at least in claims 68, 69, 75, 76, 78, 80-84 and 89) should be replaced by -- is --, in order to correct for improper grammar.

13. The following is a quotation of the second paragraph of 35 U.S.C. §112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which Applicant regards as his invention.

14. Claims 68-101 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

In amended claim 68, there is no clear and proper antecedent basis for "the amount of premier power available to apply to said power grid."

In claim 69, the claim is unclear with regard to the inclusion of the "rotating converter" and "power transformer," since no linking language (i.e.; such as "comprising" or "consisting") has been used in relation to these elements. This presents ambiguity with regard to how such elements are connected to the remainder of the system, and with regard to the scope of the claim as a whole (i.e.; whether it is open or closed).

In claim 70, there is no clear definition within the claim language for the phrase "rotating converter," since "said rotating converter" has been instantly claimed as "including" any of a plurality of types of devices, only one of which is "a rotating converter." This presents inconsistency within the claim language for what constitutes such a converter. Furthermore, there is no clear functional antecedence for one of the listed "rotating converters" being able to "supply" power.

In claim 71, there is no clear and proper antecedent basis for "said rotating converter," since a plurality have previously been provided for.

In claim 77, there is no functional antecedence for, nor is there any claimed support for, the instantly claimed statement of desired result, that "said rotating converter is configured to withstand a large voltage sag ... without tripping a breaker connected to the power grid." There is nothing in the instant claim language that would necessitate such a desired characteristic. In addition, since the limitation seems to be presented in a negative form, there would appear to be no metes and bounds for how such a desired result would actually be accomplished, since it would seem to encompass any and all manner of achieving such a desired result.

Claim 78 is grammatically awkward and, hence, difficult to understand, while there appears to be no functional antecedence for any "wind energy" having been "used to produce said renewable energy power production facility."

In claims 86 and 87, it is unclear whether any functional antecedence exists for "energy stored/held by the remote facility."

In claim 95, there is no functional antecedence for any "load imparted by the remote facility."

The remainder of the claims are rejected as necessarily incorporating the above-noted ambiguities of their parent claims.

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by Applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by Applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

16. Claims 68, 83 and 90-95 are rejected under 35 U.S.C. §102(e) as being clearly anticipated by Jaunich (U.S. Patent No. 6,605,880), which discloses a process which "provides constant electric power from a combination of a wind energy generator and a firm secondary generator. The wind energy generator and the secondary generator supply electricity directly to a utility transmission system. The secondary generator must be able to provide power on demand that will meet a utility's needs. The secondary generator is preferably a natural gas turbine, but may be a hydrogen fuel cell, a diesel internal combustion engine, or any other similar technology" (see the abstract).

17. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18. Claims 69-76 are rejected under 35 U.S.C. §103(a) as being unpatentable over Jaunich (U.S. Patent No. 6,605,880), as applied to claim 68 above, further in view of Yoshioka (U.S. Patent No. 4,344,026), which discloses a "static Scherbius system which controls the speed of a wound-rotor induction motor, and more particularly to a static Scherbius system which prevents damage to a rectifier and an inverter and prevents also failure of commutation by the inverter due to an overvoltage appearing at

the instant of recovery of the AC power supply voltage after sudden momentary service interruption" (col. 1, lines 5-13), and all of the limitations oft eh dependent claims.

It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize such a converter, as taught by Yoshioka, in the system of Jaunich, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

19. Claim 77 is rejected under 35 U.S.C. §103(a) as being unpatentable over Jaunich (U.S. Patent No. 6,605,880), as applied to claim 68 above, further in view of Degeneff et al. (U.S. Patent No. 5,604,423), which disclose a "tap changing system for operation with a transformer and featuring a special group of gate-controlled electronic devices that operate as a circuit breaker and recloser such that, after half-cycle of short-circuit current, said special group is transferred to the OFF-state, whereby the tap changer winding is open circuited; the advantage being that only the special group of devices need be rated to sustain short-circuit conditions; a further feature is the concept of Discrete-Cycle Modulation (DCM) whereby tap voltage magnitudes are obtainable in increments intermediate the physical tap winding voltage magnitudes" (see the abstract), wherein "tap changing is used extensively in a wide variety of electrical inductive apparatus such as AC voltage regulating transformers, HVDC rectifier and inverter transformers and phase angle regulators to adjust the devices turns ratio or phase angle while the-device is serving load. Most of the tap changing methods in use utilize a switching means to alternately connect various sections of one winding of the electrical inductive apparatus into a circuit. One extensively used switching means is a mechanical contact switch in which a movable contact selectively engages stationary contacts connected to various sections of the winding so as to connect varying numbers of turns into the circuit. This methodology is at present used to the virtual exclusion of all other methods in large power apparatus" (see at least, cols. 1-3).

It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize such avoidance of tripping a circuit breaker, as taught by Degeneff et al., in the system of Jaunich, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

20. Claims 78 and 84-89 are rejected under 35 U.S.C. §103(a) as being unpatentable over Jaunich (U.S. Patent No. 6,605,880), as applied to claim 68 above, further in view of Jeppson (U.S. Patent No.

4,035,659), which discloses "generating stations which each have a rotary voltage step-up mechanism integrated with an inertial energy storage device are connected in series through a transmission line to produce high-voltage utility electrical power from distributed primary energy sources, such as arrays of solar energy panels, wind-driven generators or the like, which may be intermittent. Each station in the series may include an elevated generator supported on insulative structure and operating at the high-voltage level of the transmission line to add an increment of voltage and power to the line. The generator is driven through an insulative drive shaft by a motor operated from the nearby primary energy sources. Each station further includes a massive flywheel secured to the drive shaft assembly that links the generator and motor in order to store locally developed energy during periods of excess supply whereby energy may be continued to be delivered to the transmission line during periods of diminished supply or to meet demand peaks" (see the abstract).

It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize such virtual energy storage, as taught by Jeppson, in the system of Jaunich, because Jeppson teach a resultant accommodation of the cyclical imbalances between energy source output and power utilization demands, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

21. Claims 79-82 are rejected under 35 U.S.C. §103(a) as being unpatentable over Jaunich (U.S. Patent No. 6,605,880), as applied to claim 68 above, further in view of Lauw (U.S. Patent No. 5,028,804), which discloses an "energy conversion generation system receives energy from a resource and converts the energy into electrical power for supply to a polyphase electric power grid operating at a system frequency. A prime mover driven by the resource energy and a converter, such as a power electronic converter, for produces excitation power from power received from a converter power source. A brushless doubly-fed generator has a rotor with rotor windings and a stator with stator windings comprising first and second polyphase stator systems. The rotor is driven by the prime mover. The first stator system supplies the electrical power to the grid, and the second stator system receives the excitation power from the converter. A sensor senses a parameter of the electrical power output supplied to the grid and produces a sensor signal corresponding to the sensed parameter. A controller controls the converter in response to the sensor signal" (see the abstract).

It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize such a prime mover, as taught by Lauw, in the system of Jaunich, since it has been

held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

22. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. §103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR §1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. §103(c) and potential 35 U.S.C. §102(e), (f) or (g) prior art under 35 U.S.C. §103(a).

23. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. Applicant is advised to carefully review the cited art, as evidence of the state of the art, in preparation for responding to this Office action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria N. Von Buhr whose telephone number is 571-272-3755. The examiner can normally be reached on M-F (9am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Maria N. Von Buhr
Primary Patent Examiner
Art Unit 2125

MNVB
3/8/05